IN THE SPECIFICATION:

Please substitute the paragraph starting at page 2, line 10 and ending at line 22, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B1

--In the above-described example of the prior art, however, only a single bearing is used. Therefore, when a force is applied to the output shaft from a radial side, the output shaft may become inclined with the aforementioned bearing acting as a fulcrum, whereby the rotor portion deviates relative to the vibration member. As a result, a frictional contact state of a rotor contact surface 160, where the rotor body 132 contacts the metallic block 152, becomes non-uniform; this may result in problems such as a reduction in the efficiency of the motor, the occurrence of noise, and wear of the contact surface (a reduction in the life of the motor).--

Please substitute the paragraph starting at page 2, line 25 and ending at page 3, line 8, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B2

--One aspect of this invention is to provide a vibration type driving apparatus in which a vibration member is supported in a case thereof by a support member, an output shaft is supported by bearings at opposite end portions of the case, where the output shaft is extended through a through-hole in the axial center portions of the vibration member and a rotating member, and the through-hole of the vibration member

B2 cncld.

is used as a sliding bearing for the output shaft. In this manner, the motor may be stably driven even if extraneous forces act on the output shaft from various directions.--

Please substitute the paragraph starting at page 4, line 1 and ending at line 11, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B3

--In a vibration wave driving apparatus according to this embodiment, a circular ring-shaped piezoelectric element 4 (an electro-mechanical energy conversion element) and a vibration member supporting member 3 formed by a thin plate of a metal or the like are sandwiched between bar-like hollow metallic members 5 and 6 as two elastic members, and these metallic members 5 and 6 are held and fixed by a hollow bolt l and a nut 7 made of a metal which are fastening members to thereby constitute a vibration member.--

Please substitute the paragraph starting at page 4, line 26 and ending at page 5, line 18, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B4

--In the vibration wave driving apparatus of the present embodiment, a rotary member 8 is disposed on one side of the vibration member, and a cylindrical frictional sliding member 8a is fixed to the outer peripheral portion of the rotary member 8; the fore end portion of the frictional sliding member 8a, which is adjacent to this rotary

B4 cont.

member, is adapted to contact with a frictional sliding member 5a on the vibration member side, which is provided on the outer peripheral end portion of the end surface of the metallic member 5 constituting the vibration member. The rotary member 8 is fitted to the outer diametral portion of a pressing spring 9, which is a belleville spring having its coaxiality and inclination with respect to the output shaft 2 regulated by a caulking member 12, and the sliding member 8a of the rotary member 8 and the frictional sliding member 5a on the vibration member side are adapted to be brought into pressure contact with each other by the spring force of the pressure spring 9.--

Please substitute the paragraph starting at page 5, line 19 and ending at page 6, line 2, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

--The vibration member in the present embodiment is constructed with the vibration member supporting member 3 sandwiched and fixed simultaneously with the piezoelectric element 4. The vibration member supporting member 3 is disc-shaped, and the outer peripheral portion thereof is joined to the confronting surfaces of the case portions 15 and 16 of an external case of a two-piece construction. This joint is formed by electric resistance welding, laser welding, adhesion by an adhesive agent or brazing.--

Please substitute the paragraph starting at page 6, line 3 and ending at line 13, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B4 cncl'd.

--The role of the vibration member supporting member 3 is to support the vibration member, but if the vibration member supporting member is too thick and too great in rigidity, a vibration generated by the vibration member will be transmitted to the aforementioned case, and vibration energy of high efficiency will not be generated. Therefore, the vibration member supporting member 3 is provided with suitable flexibility. As a result, , a spatial position of the vibration member is not firmly determined relative to the external case 15, 16, and may become inclined or eccentric.--

Please substitute the paragraph starting at page 6, line 14 and ending at line 17, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

-- Also as a result, the vibration of the vibration member is not efficiently transmitted to the frictional sliding member 8a of the rotary member 8, and the following problems arise.--

Please substitute the paragraph starting at page 7, line 5 and ending at line 13, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B5

-- Two snap rings 17 are disposed so as to sandwich the ball bearing 10 therebetween. Therefore, the output shaft 2 has its spatial position determined relative to the aforementioned external case. That is, the position of the output shaft 2 is first

B5 cancel

determined relative to the external case, and the through-hole 1a acts as a bearing relative to the output shaft 2 and thus, the position of the vibration member is determined.--

Please substitute the paragraph starting at page 7, line 21 and ending at line 27, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B6

--Thus, the vibration member and the rotary member 8 have their positions determined with the output shaft 2 as the reference. Therefore, the frictional sliding member 8a on the rotary member side and the frictional sliding member 5a on the vibration member side are capable of stably contacting each other.--

Please substitute the paragraph starting at page 8, line 8 and ending at line 24, with the following replacement paragraph. A marked-up copy of this paragraph, showing the changes made thereto, is attached.

B7

--Near the ball bearing 10, a rotary plate 13, which is a part of an encoder for detecting the rotated position, is fixed to the output shaft 2. The rotary plate 13 is formed with a number of holes in radial directions, and rotation of the rotary plate is detected by counting incidents of interception and passage of light from a photointerrupter 14 fixed to the inner side of the case 16, to thereby detect the position. If the photointerrupter 14 is one of a fiber type, which can obtain thin rays of light, the resolving power will be improved and the positioning accuracy will also be heightened; therefore,

B7 cancel.

this structure is most desirable. In the present embodiment, a sensor of a light detecting type is used as the photointerrupter, but a potentiometer or the like for detecting the rotated position using variation in an electrical resistance value may be contained in the case.--

Please substitute the paragraphs starting at page 9, line 1 and ending at page 11, line 9, with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the changes made thereto, is attached.

B8

--A vibration member in this embodiment, unlike that in the first embodiment, does not use a hollow bolt as a fastening member. Metallic members 5 and 6 (two elastic members), a vibration member supporting member 3 and a piezoelectric element 4 are adhesively secured and coupled together by an adhesive agent.

In the present embodiment, frictional sliding portions are provided on opposite ends of the vibration member, and two rotary members 8 are also provided. Thereby, compared with a motor having a single rotary member, the created torque typically becomes double. Also, a large-diametered hole portion is formed in the axis of each rotary member 8 from the outer end side thereof, and the inner end portion side thereof is made small in diameter, and a pressing coil spring 9 is disposed in this large-diametered hole portion so as not to slip off.

Also, a rotation stop 12 is mounted in the aforedescribed large-diametered hole portion on the outer end portion side of each rotary member 8, and a spline is formed in the outer periphery of the rotation stop 12 and is fitted to the rotary member 8. The

B8 cont.

rotation stop 12 is inserted into the inner spline portion of the rotary member 8 while being forced onto the output shaft 2 and compressing the pressing spring 9. The rotary members 8 are restrained from rotating relative to the rotation stops 12, but can freely slide in the axial direction thereof. Consequently, only the rotational forces of the rotary members 8 can be transmitted to the output shaft 2.

Flanged sliding bearings 18 are provided on the inner diametral end portions of the metallic members 5 and 6 (elastic members). In the present embodiment, the bearing portions of the sliding bearing 18 are made of polyacetal, but depending on the temperature at which the motor is used, a material having good heat resistance such as Nylon, Teflon or PPS is preferable in some cases.

In the present embodiment, the sliding bearings 18 are fixed to the outer sides of the metallic members 5 and 6 (elastic members), and the output shaft 2 is rotated relative to the sliding bearings 18. Alternately, the output shaft 2 and the sliding bearings 18 may be fixed and the sliding bearings 18 and the metallic members 5 and 6 may be made rotatable relative to each other. In this case, the output shaft 2 may be covered with a heat-contracting tube made of resin or the output shaft 2 may be coated with a resin such as Teflon. Further, if oil is contained in the interior of the resin, the output shaft 2 can be rotated more smoothly , which is desirable.

This oil does not flow out to the outside and, therefore, there is no fear that the oil will contaminate the frictional sliding portion of the vibration member or the rotary member. Also, vibration leakage is preferably little if the sliding bearings 18 are disposed at positions which correspond to nodes of vibration generated in the vibration member. The sliding bearings 18 may be made of an oil-containing sintered metal, but may more

B8 cancel.

desirably be made of resin, because in the case of metal, noise is likely to occur due to the vibration of the vibration member.--

Please substitute the paragraphs starting at page 12, line 13 and ending at page 13, line 4, with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the changes made thereto, is attached.

B9

--A lid member 31 is fitted to the external case 30, and at this time, a spacer 19 made of resin is put onto the output shaft 2. By virtue of this spacer 19, an unreasonable force is not applied to the vibration member supporting member 3, etc., even when an axial force is applied to the output shaft 2.

Lastly, the vibration member supporting member 3 was soldered to the hole 30a of the external case 30, and the external case 30 and the lid member 31 were joined together by an adhesive agent. In these cases, the joint may of course be formed by welding or the like. In the present embodiment, the rotary members 8 are brought into pressure contact with frictional sliding members 5a, 6a on the vibration member side by the pressing springs 9, but the reaction forces thereof are received by the two rotation stops 12 forced onto the output shaft 2 and therefore, there is not any friction loss by forces axially created in the bearings 11.--

Please substitute the paragraphs starting at page 13, line 21 and ending at page 14, line 10, with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the changes made thereto, is attached.

B10

--This third embodiment, like the second embodiment, is of a type in which rotary members 8 are provided on opposite end portions of a vibration member, and a sliding bearing 22 comprised of a sliding bearing similar to the sliding bearing 18 in the second embodiment is provided in the hole portion of the small-diametered portion side on the inner end side of each rotary member 8. This sliding bearing 22 is made of resin and is forced into the aforedescribed bore of each rotary member 8. By virtue of this sliding bearing 22, each rotary member 8 is rotatable without being eccentric relative to the output shaft 2. Therefore, irregularity of the rotation of the motor is reduced.

Also, in the present embodiment, sliding bearings 32 of a sliding bearing type are forced into opposite ends of the bore portion of a hollow bolt 1.--

Please substitute the paragraphs starting at page 14, line 26 and ending at page 15, line 18, with the following replacement paragraphs. A marked-up copy of these paragraphs, showing the changes made thereto, is attached.

B11

--As described above, according to the present invention, the positional relation of the output shaft is determined relative to the through-hole of the vibration member. Therefore, the vibration member is not inclined with respect to the output shaft, and even if a sideways force is applied to the output shaft, the contact state of the